REMARKS

Claims 1, 3, 6-7, 12, 14-16, 32-34, 42, 46-47 and 64-67 are pending with Claims 1 and 32 as independent claims. The Examiner objected to Claim 12 because it is a duplicate of Claim 7. The Examiner rejects the claims under 35 USC §102(b) as being anticipated by Oberman et al. (US Pub. No. 2001/0023425).

Reconsideration of the instant application in view of the above amendments and the following remarks is respectfully requested.

Regarding the assertion that Claim 12 is a substantial duplicate of Claim 7, the Applicants respectfully disagree. Claim 12 recites among others: "a quotient logic and a selector" whereas Claim 7 recites "wherein the third logic performs the full addition operation using at least two Carry Save Adders (CSAs) each including a plurality of full adders." Furthermore, as in Claim 1, Claim 7 recites the 'third logic,' which corresponds to CSA 1, 2 (120,150) and FA (160) in Fig.1; Claim 12 recites the 'second logic,' which corresponds to a QUOTIENT LOGIC (130) and a SELECTOR (140) in Fig. 1. As can be seen, these two claims are substantially different. Accordingly, withdrawal of the rejection is respectfully requested.

Oberman provides a method and apparatus for multiplying signed scalar and vector operation. Particularly, Oberman discloses the multiplier apparatus calculating signs of multiplier and multiplicand operand according to Booth's algorithm, and outputting the result after repeatedly operating a partial product. Also, Fig. 16 of Oberman illustrates the multiplier apparatus realized by using a plurality of carry-save adders (CSA).

Claim 1 has been amended to better clarify the invention, and is directed to a signal processing apparatus for performing modular multiplication, whereas Oberman is directed to a method and apparatus for multiplying signed scalar and vector operation, and it fails to disclose any description related to modular multiplication. The Examiner's attention is drawn to the fact that just as signed multiplication and modular multiplication are different from each other, Oberman and the present invention are also different from each other.
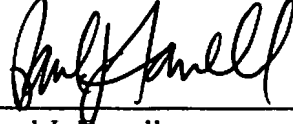
Furthermore, the novel feature of the present invention is that a "third logic" determines carry input value "Carry-in" of a current clock from a carry value "cin" for correction of a previous clock, and a "second logic" outputs a modulus which is signed in the modular multiplication based on the carry input value "Carry-in" of a current clock and sign bit of a multiplicand. This feature is also recited in the second step of independent Claim 32. An object of the present invention is to reduce the number of gates of modular multiplier and power consumption. Oberman fails to disclose or fairly suggest the above recitations. Accordingly, the Examiner fails to establish a prima facie case of anticipation under 35 U.S.C. §102 because Oberman does not explicitly or impliedly disclose all the aspects of the claimed invention as recited in MPEP 706.02(IV).

Claims 2, 3, 6-7, 12, 14-16, 33-34, 42, 46-47 and 64-67 depend from independent Claims 1, and 32. Therefore, without conceding the patentability per se of dependent Claims 2, 3, 6-7, 12, 14-16, 33-34, 42, 46-47 and 64-67, they are believed to be patentably distinguished over Oberman, based on their respective dependency from independent Claims 1 and 32. Accordingly, reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of Claims 1, 3, 6-7, 12, 14-16, 32-34, 42, 46-47 and 64-67 is respectfully requested.

In view of the above, it is believed that the subject matter of claims 1, 3, 6-7, 12, 14-16, 32-34, 42, 46-47 and 64-67 are not anticipated in view of the cited reference and are in condition for allowance. Thus, it is respectfully requested that the Examiner withdraw the 35 U.S.C.§102(b) rejection of Claims 1, 3, 6-7, 12, 14-16, 32-34, 42, 46-47 and 64-67 and reconsider said claims for allowance.

Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below. An early and favorable action is earnestly solicited.

Respectfully submitted,

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